

Sudden Oak Death

Tennessee Department of Agriculture, Division of Forestry

Sudden oak death (SOD) first appeared in California in 1995. This imported fungus has killed tens of thousands of oaks in California. In addition, it lives on a variety of shrubs such as huckleberry, viburnum, and rhododendron. This pest poses a substantial risk to eastern forests. Many eastern oaks, especially northern red and pin oaks, are highly susceptible. So far the pest has been confined to California and southwest Oregon, but it could be spread to the East by transport of ornamentals.

Stem cankers occur on oaks.

Cankered trees may survive for one to several years, but once crown dieback begins, leaves turn pale yellow then brown within a few weeks. A black or reddish ooze often bleeds from the cankers, staining the surface of the bark.

Dead tissues surrounded by zone lines are usually found under affected bark. Because these symptoms can be caused by related fungi, laboratory tests must be done to determine pathogen identity.

Symptoms are similar to other oak problems: canker rots, slime flux, leaf scorch, root disease, freeze damage, herbicide injury, and others. Oak wilt,

oak decline, and the red oak borer are potentially the most confusing.

Oak wilt does not cause stem cankers or bleeding. Dark staining may be evident under the bark of trees with oak wilt, but there are no conspicuous zone lines. Oak wilt typically causes red oak leaves to turn brown around the edges while the veins remain green, and leaves are rapidly shed as the tree dies. Conversely, in SOD the veins first turn yellow and eventually brown. Leaves are often retained on the tree after it dies.

Oak decline shows evidence of dieback over several years from the top down and the outside in. Dieback from SOD occurs over a growing season or two. In oak decline, the staining from borer wounds has a discrete margin with no zone lines or evidence of canker development beyond the attack site.

With red oak borer, the inner bark beneath the dark stain contains a frass-packed burrow and has a discrete margin with no zone lines or evidence of caner development beyond it.